

O-rings can easily be damaged. Do not use a steam cleaner, a high-pressure washer or any solvent that may damage the rubber O-rings.

1. Remove the drive chain as described in this chapter.
2. Immerse the chain in a pan of kerosene or non-flammable solvent and allow it to soak for about half an hour. Move it around and flex it during this period so that the dirt between the links, pins and rollers may work its way out.

CAUTION

In the next step, on O-ring type chains do not use a wire brush or the O-rings will be damaged and the drive chain must be replaced.

- 3A. On O-ring type chains, scrub the rollers and side plates with a medium soft brush and rinse away loosened dirt. Do not scrub hard as the O-rings may be damaged. Rinse it a couple of times to make sure all dirt and grit are washed out. Dry the chain with a shop cloth then hang it up and allow the chain to thoroughly dry.
- 3B. On chains without O-rings, scrub the rollers and side plates with a stiff brush and rinse away loosened dirt. Rinse it a couple of times to make sure all dirt and grit are washed out. Dry the chain with a shop cloth then hang it up and allow the chain to thoroughly dry.
4. After cleaning the chain, examine it carefully for wear or damage. If any signs are visible, replace the chain.
5. Lay the chain alongside a ruler (**Figure 113**) and compress the links together. Then stretch them apart. If more than 0.6 mm (1/4 in.) of movement within 30.5 mm (12 in.) of chain is possible, replace the drive chain as it is too worn to be used again.

NOTE

Honda does not provide drive chain description numbers nor number of links. If the chain must be replaced, take the old chain to a dealer and purchase one identical to it.

NOTE

Always check both sprockets every time the chain is removed. If any wear is visible on the teeth, replace the sprocket(s). Never install a new chain over worn sprockets or a worn chain over new sprockets.

- 6A. On O-ring type chains, lubricate the chain with SAE 80W-90 gear oil or a good grade of chain lubricant (specifically formulated for O-ring chains), following the manufacturer's instructions.
- 6B. On chains without O-rings, lubricate the chain with a good grade of chain lubricant, following the manufacturer's instructions. If a chain lubricant isn't available use SAE 10W-30 motor oil.
7. Reinstall the chain as described in this chapter.

REAR AXLE BEARING HOLDER

The rear axle bearing holder is attached to the frame at the rear and contains the rear axle bearings and grease seals. On some models, it is also part of the rear brake.

Removal/Installation And Bearing Replacement (1973-1974 ATC70)

Refer to **Figure 57** for this procedure.

1. Remove the axle as described in this chapter.

NOTE

On these models only, when the axle is removed, the 2 bearing holders (or panels) that contain the axle bearings are removed at the same time.

2. On the left-hand panel, perform the following:
 - a. Remove the short panel collar from each side of the panel.
 - b. Remove the oil seal and discard it.
 - c. Remove the circlip.
 - d. Using your fingers, press the bearing out of the panel.
 - e. Turn the bearing by hand and make sure it turns smoothly.

NOTE

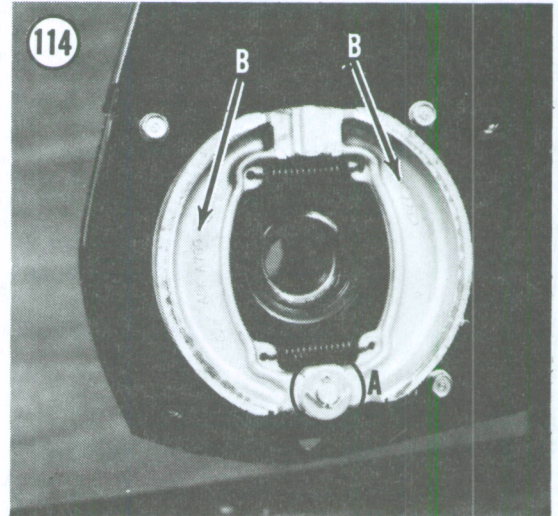
Some axial play is normal, but radial play should be negligible. The bearing should turn smoothly.

- f. Check the balls for evidence of wear, pitting or excessive heat (bluish tint). Replace the bearing if necessary. When replacing, be sure to take your old bearings along to ensure a perfect matchup.
 - g. Install the bearing with the sealed surface facing toward the outside. Press the bearing in with your fingers until it bottoms.
 - h. Install the circlip and make sure it completely seats in the groove.
 - i. Apply a light coat of multipurpose grease to the lips of the new oil seal. Tap the oil seal in until it is flush with the surface of the left-hand panel.
 - j. Install the short panel collar into each side of the panel.
3. On the right-hand panel, perform the following:
 - a. Remove the short panel collar from each side of the panel.
 - b. Remove the mounting bolt rubber cushions.
 - c. Remove the brake arm dust seal.
 - d. Remove the brake shoes and return springs.
 - e. Remove the brake camshaft.
 - f. Remove the oil seal from each side and discard them.
 - g. Using your fingers, press the 2 bearings out. The panel spacer that is between the 2 bearings will also come out.
 - h. Turn each bearing by hand and make sure it turns smoothly.

NOTE

Some axial play is normal, but radial play should be negligible. The bearing should turn smoothly.

- i. Check the balls for evidence of wear, pitting or excessive heat (bluish tint). Replace the bearing if necessary. When replacing, be sure to take your old bearings along to ensure a perfect matchup.
- j. Apply a light coat of multipurpose grease to the lips of the new oil seal. Tap the outer oil seal in until it is flush with the outer surface of the right-hand panel.
- k. Place the panel spacer in between the 2 bearings (with their sealed surfaces facing toward the outside). Press this assembly into the right-hand panel until it touches the already installed oil seal.
- l. Apply a light coat of multipurpose grease to the lips of the new oil seal. Tap the oil seal in until it is flush with the surface of the right-hand panel.
- m. Install the brake camshaft and apply a light coat of multipurpose grease to the camshaft



and anchor pin. Do not allow any grease to come in contact with the brake shoes.

- n. Install the brake shoes, return springs and the dust seal.
 - o. Install the mounting bolt rubber cushions.
 - p. Install the short panel collar into each side of the panel.
4. Install the rear axle as described in this chapter.

Removal/Installation

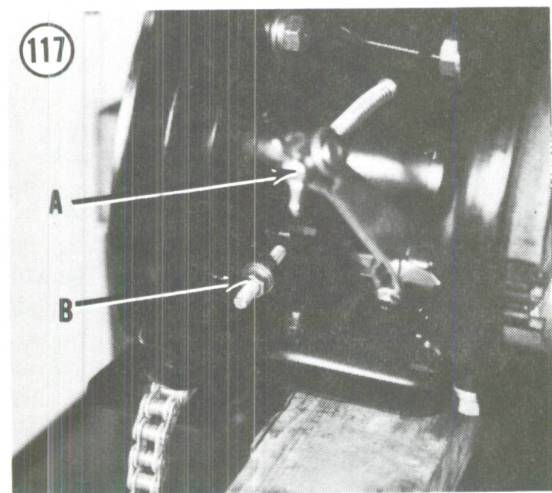
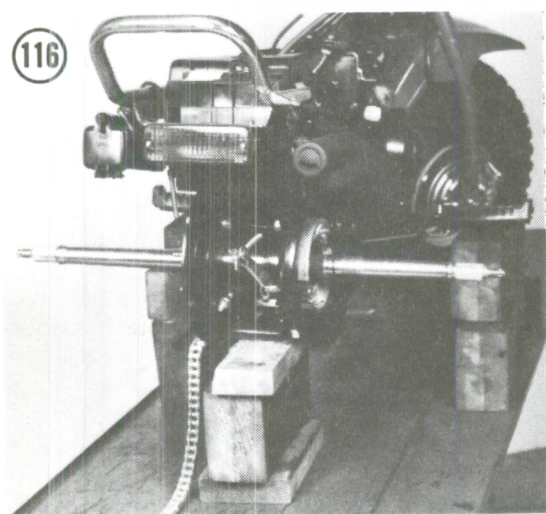
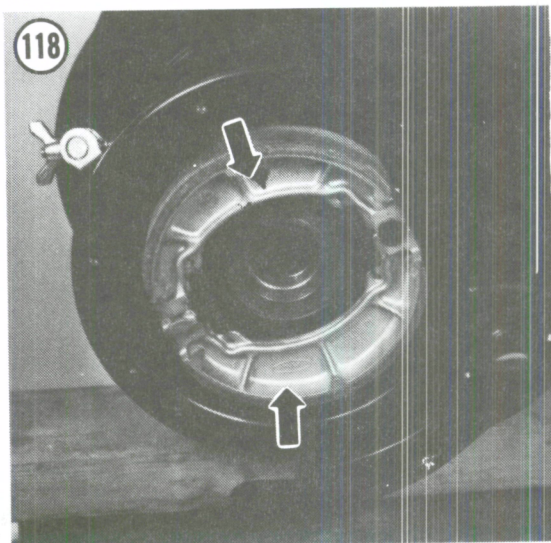
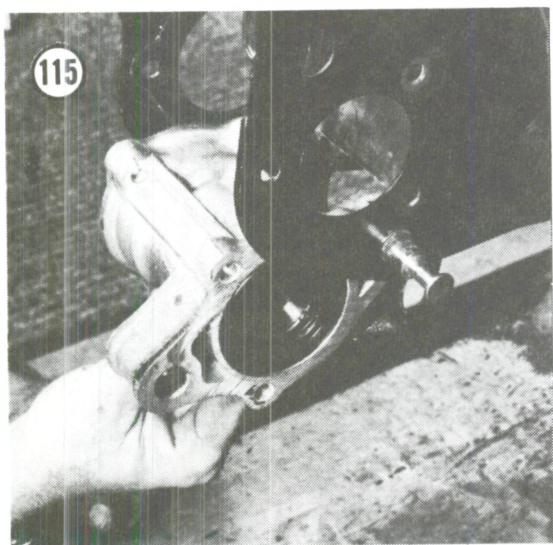
(1978-on ATC70, All ATC90 and 1981-1983 ATC110)

NOTE

On 1978-on ATC70 models, the rear axle bearing holder is permanently attached to the frame and cannot be removed. Use this procedure for oil seal and bearing replacement.

Refer to Figure 74 for this procedure.

1. Remove the rear axle as described in this chapter.
2. Completely unscrew the brake adjust nut.
3. Remove the bolt and nut securing the brake arm. Remove the brake arm, return spring, washer and felt seal from the camshaft.
4. On 1970-1974 ATC90 models, perform the following:
 - a. Remove the nut securing the brake drum and the sealing washer.
 - b. Slide off the brake drum.
5. Remove the cotter pin and washer (A, Figure 114) from the anchor pin.
6. Remove the brake shoes, return springs and the camshaft as an assembly (B, Figure 114).
- 7A. On 1978-on ATC70 models, perform the following:



- a. Remove the bolts securing the brake anchor and brake cam holder.
- b. Remove the anchor and the cam holder.
- c. Remove the oil seals and bearings as described in this chapter.

7B. On 1974-1978 ATC90 and ATC110 models, perform the following:

- a. On the right-hand side, remove the nut and washers securing the brake drum outer panel and remove the panel.
- b. Withdraw the bolts from the left-hand side and rotate the bearing holder housing down and out of the frame as shown in **Figure 115**.
- c. Remove the oil seals and bearings as described in this chapter.

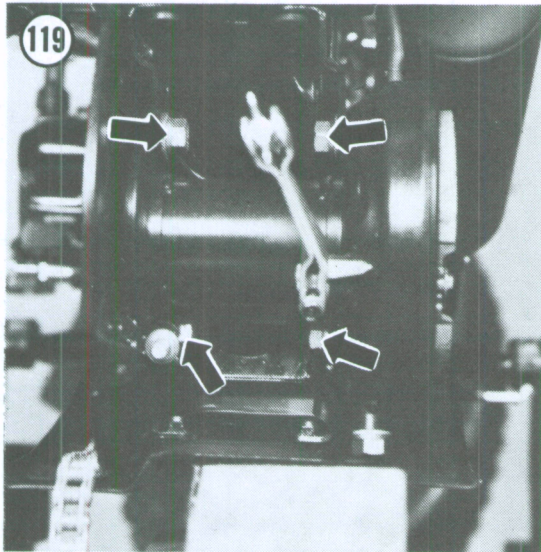
8. Install by reversing these removal steps, noting the following.

9. Adjust the rear brake and drive chain as described in Chapter Three.

Removal/Installation (1984 ATC110 and ATC125M)

Refer to **Figure 99** for this procedure.

1. Remove the rear axle (**Figure 116**) as described in this chapter.
2. Completely unscrew the brake adjust nut (A, **Figure 117**) and disconnect the brake rod from the brake arm.
3. Completely unscrew the drive chain adjust nut (B, **Figure 117**).
4. Remove the bolts securing the drive chain rear cover and remove the cover.
5. Remove the brake shoes and return springs (**Figure 118**) as an assembly.



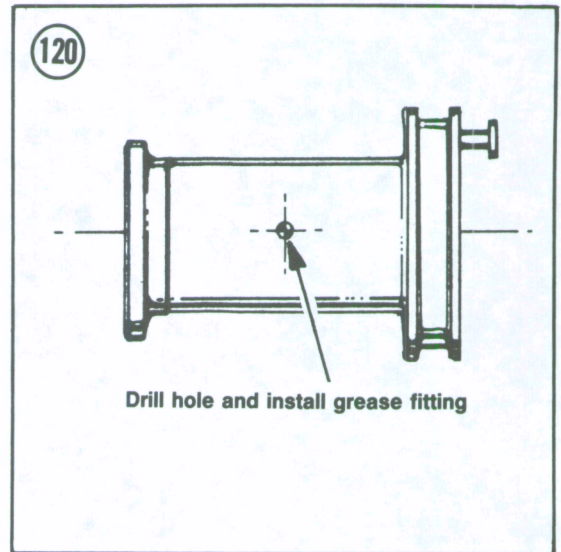
6. Remove the bolts (**Figure 119**) securing the rear axle bearing housing to the frame and remove the housing.
7. Install by reversing these removal steps, noting the following.
8. Adjust the rear brake and drive chain as described in Chapter Three.

Bearing Removal (Except 1973-1974 ATC70)

1. Remove the rear axle and bearing housing as described in this chapter.
2. Remove the oil seal and the O-ring seal (models so equipped) from each side of the bearing holder.
3. To remove the left- and right-hand bearings and distance collar, insert a soft aluminum or brass drift into one side of the hub. Push the center collar over to one side and place the drift on the inner race of the opposite bearing. Tap the bearing out of the hub with a hammer, working around the perimeter of the inner race.
4. Remove that bearing and the distance collar.
5. Repeat Step 3 for the other bearing.

Bearing Inspection (Except 1973-1974 ATC70)

1. Thoroughly clean the inside of the bearing holder with solvent and dry with compressed air or a shop cloth.
2. Do not clean sealed bearings. If non-sealed bearings are installed, thoroughly clean them in solvent and thoroughly dry with compressed air. Do not let the bearing spin while drying.
3. Turn each bearing by hand. Make sure the bearings turn smoothly.



NOTE

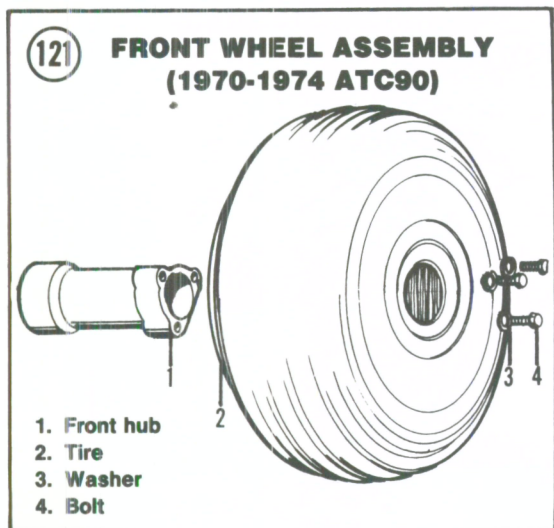
Some axial play is normal, but radial play should be negligible. The bearing should turn smoothly.

4. On non-sealed bearings, check the balls for evidence of wear, pitting or excessive heat (bluish tint). Replace bearings if necessary; always replace as a complete set. When replacing, be sure to take your old bearings along to ensure a perfect matchup.

NOTE

Fully sealed bearings are available from many good bearing specialty shops. Fully sealed bearings provide better protection from dirt and moisture that may get into the hub.

5. Inspect the grease seals and O-ring seals. Replace if they are deteriorating or starting to harden. If the ATC is ridden in a lot of water or mud the water will enter the housing and wash the grease away from the bearings. To help prevent bearing damage, install a grease fitting to the bearing housing and keep the housing packed with grease. Drill a hole in the bottom of the housing in the center and press in a 3/16 in. automotive type Zerk fitting as shown in **Figure 120**. After reinstalling the bearing housing in the frame and installing the rear axle, fill the bearing housing with multipurpose grease using a small hand-held grease gun.



Bearing Installation (Except 1973-1974 ATC70)

NOTE

Install the Honda bearings with their markings facing toward the outside of the housing.

1. On non-sealed bearings, pack the bearings with a good quality bearing grease. Work the grease in between the balls thoroughly. Turn the bearing by hand a couple of times to make sure the grease is distributed evenly inside the bearing.
2. Coat the inside of the bearing holder and the center collar with multipurpose grease.

CAUTION

During installation, tap the bearings squarely into place and tap on the outer race only. Use a socket that matches the outer race diameter. Do not tap on the inner race or the bearing may be damaged. Be sure that the bearings are completely seated.

3. Install the right-hand bearing.
4. Install the center collar and the left-hand bearing.
5. Apply a light coat of multipurpose grease to the grease seals (and O-ring seals, if so equipped) and install one on each side of the bearing holder.
6. Install the bearing holder and the rear axle as described in this chapter.

TIRES AND WHEELS

The ATC is equipped with tubeless, low pressure tires designed specifically for off-road use only. Rapid tire wear will occur if the ATC is ridden on paved surfaces. Due to their low pressure

requirements, they should be inflated only with a hand-operated air pump instead of using an air compressor or the air available at service stations.

CAUTION

Do not overinflate the stock tires as they will be permanently distorted and damaged. If overinflated they will bulge out similar to an inner tube that is not within the constraints of a tire and will not return to their original contour.

NOTE

Additional inflation pressure in the stock tires will not improve the ride or the handling characteristics of the ATC. For improved handling, aftermarket tires will have to be installed.

To guard against punctures from small objects, install a commercially available liquid tire sealer into all 3 tires through the valve stem. It's a good idea to carry a cold patch tire repair kit and hand held pump in the tow vehicle. It's also a good idea to carry the tire pump, some chewing gum and a small strip of cater).

Removing the tire from the special rims is different than on a motorcycle or automobile wheel. Due to the different types of rims used on the various models, tire removal procedures are separated into different groups.

CAUTION

Do not use conventional motorcycle tire irons for tire removal as the tire sealing bead will be damaged when forced away from the rim flange.

Tire Changing (1970-1974 ATC90)

The front and rear tires on these models are of the one-piece type (similar to an inner tube) and have no rim. Refer to **Figure 121** for the front wheel and **Figure 122** for the rear wheel. After the tire is removed from the axle all you have is a large tire with a very small hole in the center where the wheel boss is attached.

Tire Changing (All ATC70, 1975-1978 ATC90, 1979-1983 ATC110)

Refer to **Figure 123** for this procedure.

To make tire changing easier, special tools are available. The one from Honda is the Tire Disassembly Tool, Honda part No. 07772-0010000. See **Figure 124**. A variety of aftermarket tire removal tools are available at most dealers, mail order houses or motorcycle

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